

of small canals (usually two to four), which traverse the cavity of the vesicle in different directions, pierce its wall, and lose themselves in the surrounding vitellus.

In the bony fishes and Batrachia, in which there are a great number of germinal spots adherent to the inner wall of the vesicle, and the latter is surrounded by a system of canals radiating towards the surface of the ovum. Each canal is connected with one of the spots.

Multiple canals are generally met with in all ova which present more or less numerous germinal spots. Sometimes, as in some Crustacea (Crayfish, Shore-crab), these multiple spots appear also to be united to each other in the interior of the vesicle by canals.

In many Annelides, Turbellaria, Mollusca, and Acalephs the ova contain only a simple germinal spot, often of considerable size, connected with a single canal, which is enclosed in a second canal, starting from the vesicle. The germinal spot also very commonly contains one or more large vacuoles possessing a very manifest contractile power (*Helix, Prostomum, Vortex, &c.*).—*Comptes Rendus*, December 26, 1865, pp. 1173–1177.

On the Lateral Canal of Lota.

By Professor HYRTL.

The lateral canal-system of this animal possesses no orifices in the skin on the lateral line, but forms a closed subcutaneous tube, supported by cartilage throughout its whole course, and which acquires a moniliform appearance in consequence of the presence of alternate wider and narrower spaces. The absence of lateral orifices enables us to inject this canal. By this means its cephalic ramifications are also demonstrable, and these have not yet been detected in their perfect connexion in any Teleostean fish. The canal reaches the occipital region of the head above the *suprascapula*, and is there connected by a wide anastomosis with that of the opposite side; it then runs above the eye to the nose, where it becomes suddenly narrowed, and opens externally upon a capillary papilla in front of the nasal aperture. During its course to this point it emits, behind the eye, a large branch downwards; this passes forward round the orbit, emits three cæcal diverticula upon the suspensorium and to the articulation of the lower jaw, and terminates cæcally beneath the nasal pit, forming a series of ampulliform dilatations. In front of the eyes the two lateral canals are united by a short transverse duct, which forms a spherical dilatation (*alveus communis*) in its middle, and close to this emits a blind diverticulum upon the anterior frontal bone. When the canal is injected in a backward direction, we discover that it has also a posterior terminal aperture, which, like the anterior one, is to be seen upon a minute cutaneous papilla, about an inch from the caudal fin. The canal-system of both sides of the body has consequently only four cutaneous apertures.—*Anzeiger der Akad. der Wiss. in Wien*, May 11, 1866, p. 119.